

IN THE CLAIMS

Please amend the claims as follows:

1. (original) A method for determining a measure of tempo ambiguity for a music input signal (1), which method comprises:
 - identifying candidate tempos (2) of the music input signal (1);
 - ranking the candidate tempos (2) according to their relative strengths;
 - compiling a tempo scheme (4) comprising the relationship of the ranked candidate tempos (2') to each other.
2. (original) A method according to claim 1 wherein a dominant tempo and any subordinate tempos are identified among the candidate tempos (2).
3. (currently amended) A method according to claim 1 or ~~claim 2~~, wherein the tempo ambiguity scheme (4) is assigned to the music input signal (1).
4. (original) A method according to claim 3, wherein the tempo ambiguity scheme (4) is combined with the music input signal (1) in a music file (6).

5. (original) A system (7) for determining a measure of tempo ambiguity for a music input signal (1), said system comprising:

- a tempo identifying unit (8) for identifying candidate tempos (2) in the music input signal (1);
- a ranking unit (9) for ranking the candidate tempos (2) according to their relative strengths; and
- a tempo scheme compiler (10) to compile a tempo scheme (4) comprising the relationship of the ranked candidate tempos (2') to each other.

6. (original) The system of claim 5, wherein the tempo identifying unit (8) comprises a plurality of band-pass filters (11) for splitting a music input signal into different frequency bands, a plurality of resonator filter-banks (12) for identifying candidate tempos in each of the frequency bands, a plurality of resonator energy calculators (13) for calculating an energy value for each resonator filter of the resonator filter-banks (12) and a plurality of energy summation units (14) for summing the calculated energy values for like resonators of the different frequency bands.

7. (currently amended) An audio processing device for choosing a piece of music according to a particular tempo scheme generated by a method according to ~~any of the claims 1 to 4~~claim 1.

8. (currently amended) An audio processing device according to claim 7 comprising:

- a tempo identifying unit (8) for identifying candidate tempos (2) in the music input signal (1);
- a ranking unit (9) for ranking the candidate tempos (2) according to their relative strengths; and
- a tempo scheme compiler (10) to compile a tempo scheme (4) comprising the relationship of the ranked candidate tempos (2') to each other.

~~including a system according to any of claims 5 or 6.~~

9. (currently amended) An audio processing device according to claim 7~~or 8~~ comprising a music query system for choosing a music data file from a database on the basis of a particular tempo scheme.

10. (currently amended) An audio processing device according to ~~any of the claims 7 to 9~~claim 7 comprising an automatic DJ apparatus for choosing pieces of music from a music database

according to a user-defined tempo scheme so that cross-fading with minimal tempo discrepancy between subsequent pieces of music is achieved.

11. (currently amended) Exercise apparatus or training device comprising an audio processing device according to ~~any of the claims 7 to 9~~ claim 7 for selecting on the basis of tempo scheme a piece of music to suit a user's requirements for exercising at a desired tempo.

12. (currently amended) A computer program product directly loadable into the memory of a programmable audio processing device comprising software code portions for performing the steps of a method according to ~~claims 1 to 4~~ claim 1 when said product is run on the audio processing device.

13. (currently amended) A method according to claim 4, wherein the memory medium storing a music data file and its associated tempo ambiguity scheme are stored in a memory medium linked to or combined with it according to method 3 or 4.